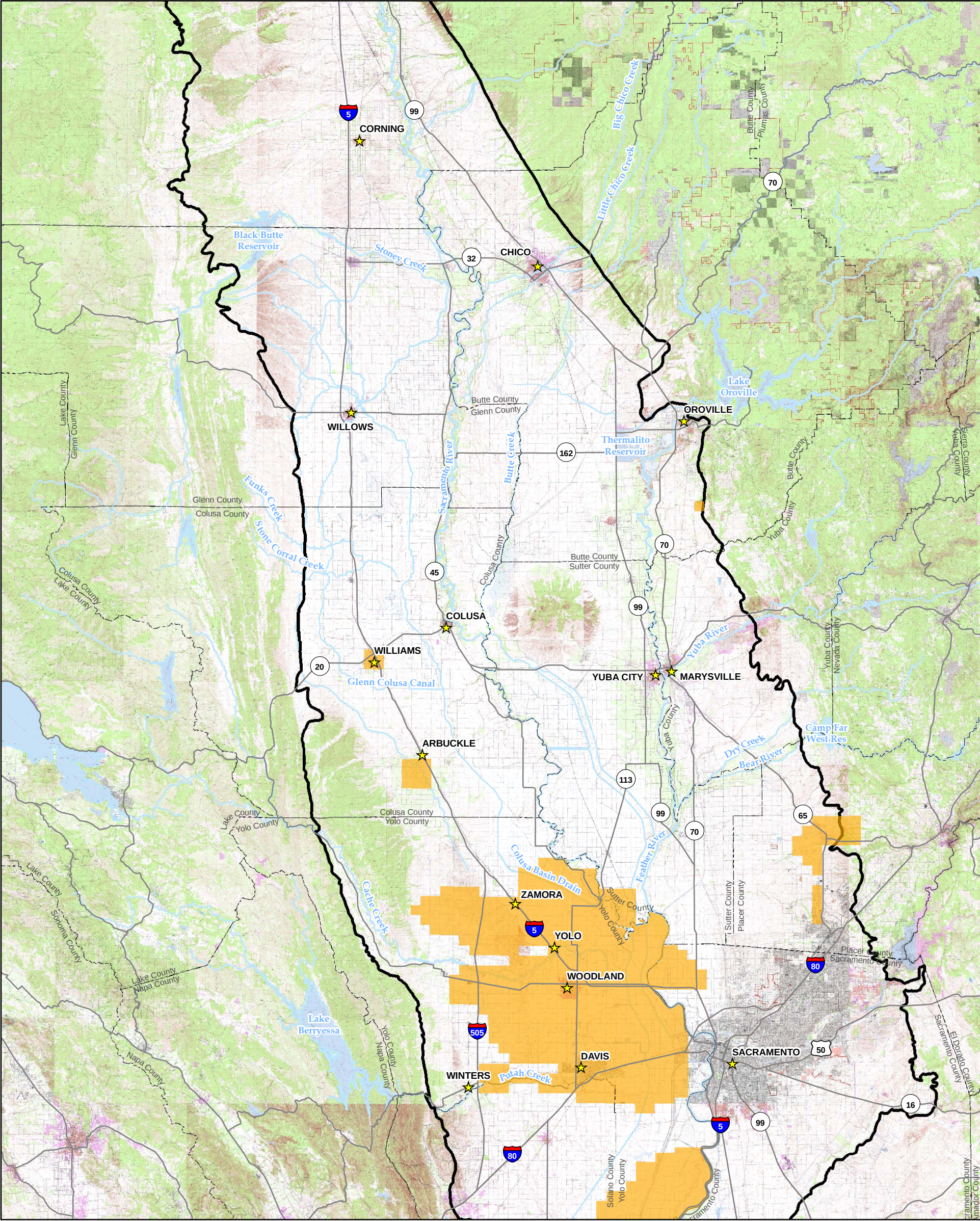


\\ODINPROJ\NORTH\CALIFORNIA\WASAC\VALLEY\PROPOS\FIGURES\MXD\MODEL APPLICATION\SACFEM\FIG_12 BORON.MXD HPERRY 7/26/2011 11:16:59



- LEGEND**
- ★ CITY
 - MAJOR WATERWAY
 - COUNTY BOUNDARY
 - SACRAMENTO VALLEY GROUNDWATER BASIN
 - AREA WHERE BORON CONCENTRATION IN GROUNDWATER IS GREATER THAN 0.75 mg/L

DATA SOURCES: BERTOLDI, 1976; EVENSON, 1985; FOGELMAN, 1978; FOGELMAN, 1979; AND JOHNSON, 1985.

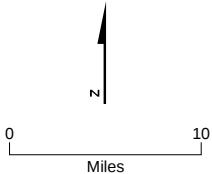
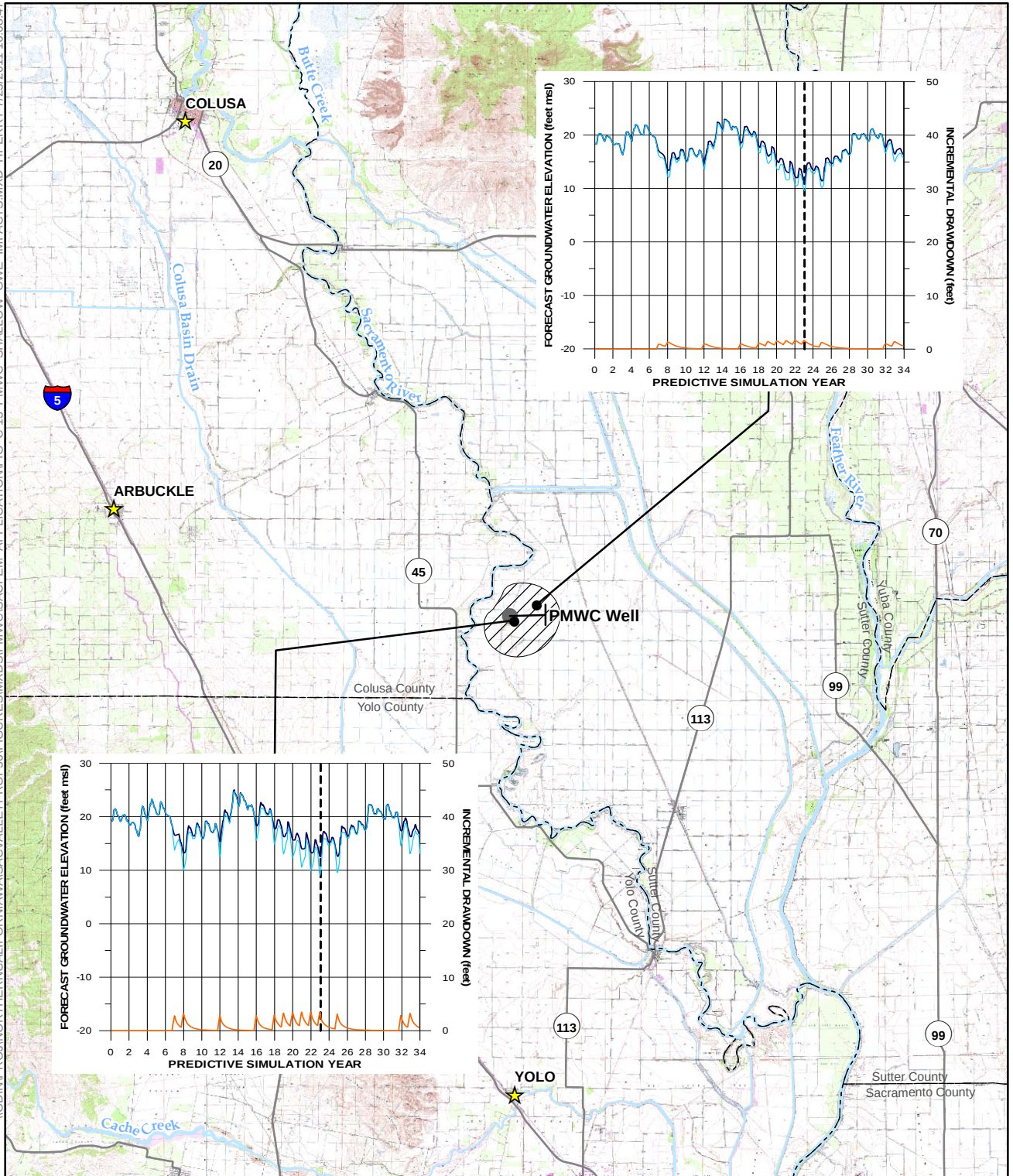


FIGURE C-12
DISTRIBUTION OF BORON GREATER THAN 0.75 mg/L IN GROUNDWATER
APPLICATION OF SACFEM TO THE PMWC GROUNDWATER PRODUCTION ELEMENT PROJECT

\\ODIN\PROJ\NORTH\CALIFORNIA\SAC\VALLEY\PRO\50\FIGURES\IMXDS\PMWC\SACFEM APPLICATION\FIG C-13 PMWC SHALLOW GWE IMPACTS.MXD HPERRY 7/25/2011 16:08:47



MAP LEGEND

- 0.25-MILE BUFFER
- LOCATION OF FORECAST GROUNDWATER ELEVATION AND INCREMENTAL DRAWDOWN

INCREMENTAL DRAWDOWN (feet)



HYDROGRAPH LEGEND

- INCREMENTAL DRAWDOWN
- BASELINE SIMULATION GROUNDWATER ELEVATION
- PROJECT SIMULATION GROUNDWATER ELEVATION
- TIME OF INCREMENTAL DRAWDOWN DISPLAYED ON MAP

NOTE:
SEE TABLE C-2 FOR A DESCRIPTION
OF THE PREDICTIVE SIMULATION YEAR.

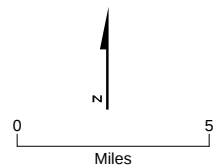
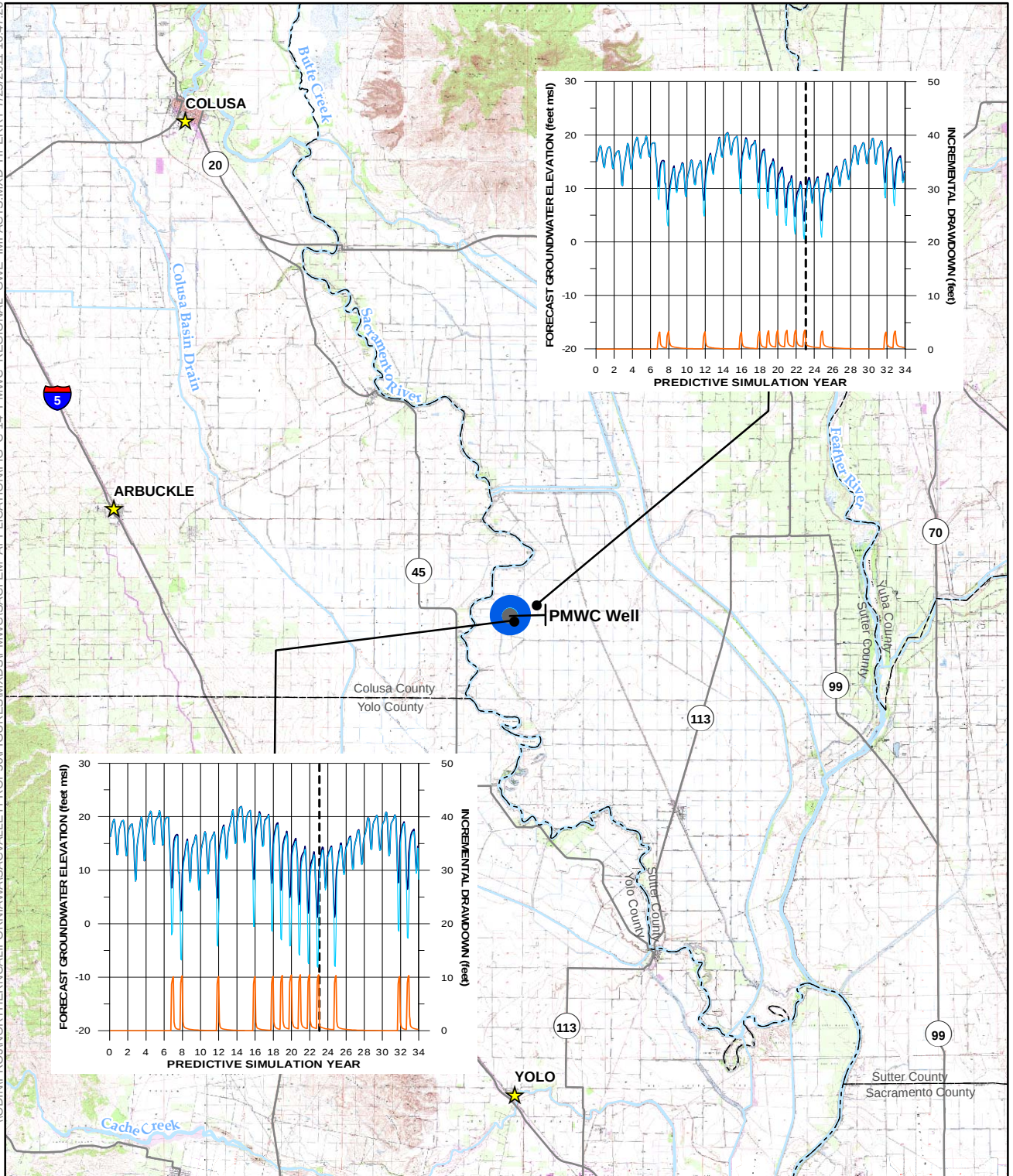


FIGURE C-13
LOCAL IMPACTS
FORECAST SHALLOW AQUIFER DRAWDOWN
APPLICATION OF SACFEM TO THE PMWC
GROUNDWATER PRODUCTION ELEMENT PROJECT

\\0101PROJ\NORTHERN\CA\VALLEY\PROP50\FIGURES\MXD\PMWC\SACFEM APPLICATION\FIG C-14 PMWC REGIONAL GWE IMPACTS.MXD HPERRY 7/25/2011 16:47:26



MAP LEGEND

- 0.25-MILE BUFFER
- LOCATION OF FORECAST GROUNDWATER ELEVATION AND INCREMENTAL DRAWDOWN

INCREMENTAL DRAWDOWN (feet)



HYDROGRAPH LEGEND

- INCREMENTAL DRAWDOWN
- BASELINE SIMULATION GROUNDWATER ELEVATION
- PROJECT SIMULATION GROUNDWATER ELEVATION
- TIME OF INCREMENTAL DRAWDOWN DISPLAYED ON MAP

NOTE:
SEE TABLE C-2 FOR A DESCRIPTION
OF THE PREDICTIVE SIMULATION YEAR.

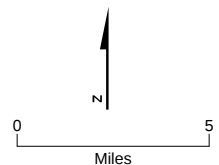
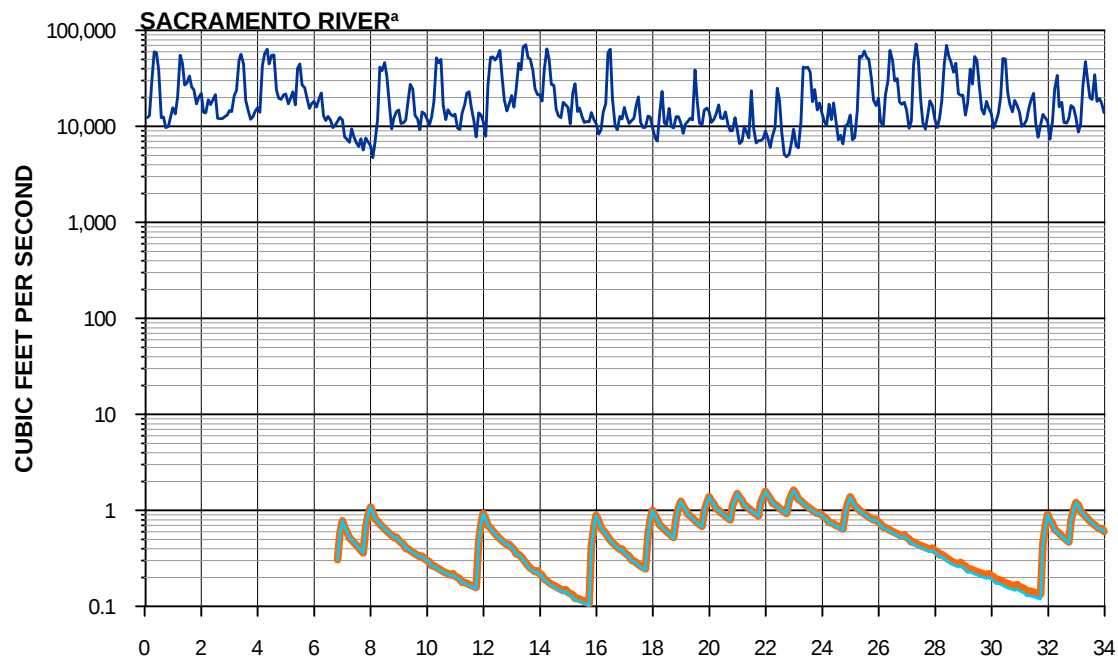


FIGURE C-14
LOCAL IMPACTS
FORECAST REGIONAL AQUIFER DRAWDOWN
APPLICATION OF SACFEM TO THE PMWC
GROUNDWATER PRODUCTION ELEMENT PROJECT



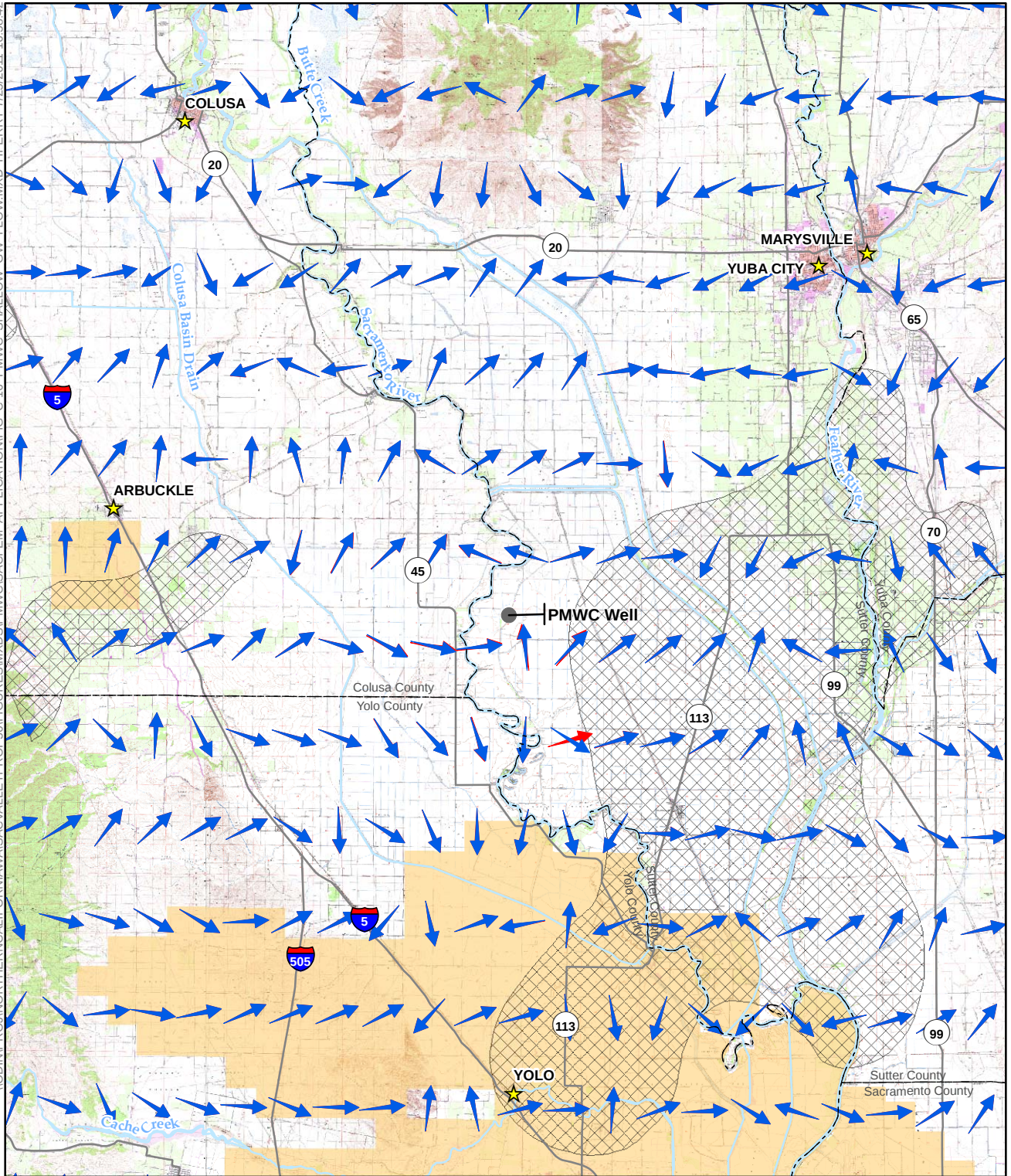
PREDICTIVE SIMULATION YEAR	WATER-YEAR HYDROLOGY	PREDICTIVE SIMULATION YEAR	WATER-YEAR HYDROLOGY
1	1970	18	1987
2	1971	19	1988
3	1972	20	1989
4	1973	21	1990
5	1974	22	1991
6	1975	23	1992
7	1976	24	1993
8	1977	25	1994
9	1978	26	1995
10	1979	27	1996
11	1980	28	1997
12	1981	29	1998
13	1982	30	1999
14	1983	31	2000
15	1984	32	2001
16	1985	33	2002
17	1986	34	2003

^aMEASURED STREAMFLOW AT
USGS GAGE No. 11425500,
SACRAMENTO RIVER AT
VERONA, CALIFORNIA.

FIGURE C-15
LOCAL IMPACTS
FORECAST STREAM IMPACTS

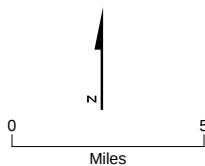
APPLICATION OF SACFEM TO THE PMWC
GROUNDWATER PRODUCTION ELEMENT PROJECT

I:\ODIN\PROJ\NORTHERN\CALIFORNIA\WASAC\VALLEY\PROP50\FIGURES\FIG C-16 PMWC SHALLOW GW FLOW.MXD HPERRY 7/25/2011 16:58:42



LEGEND

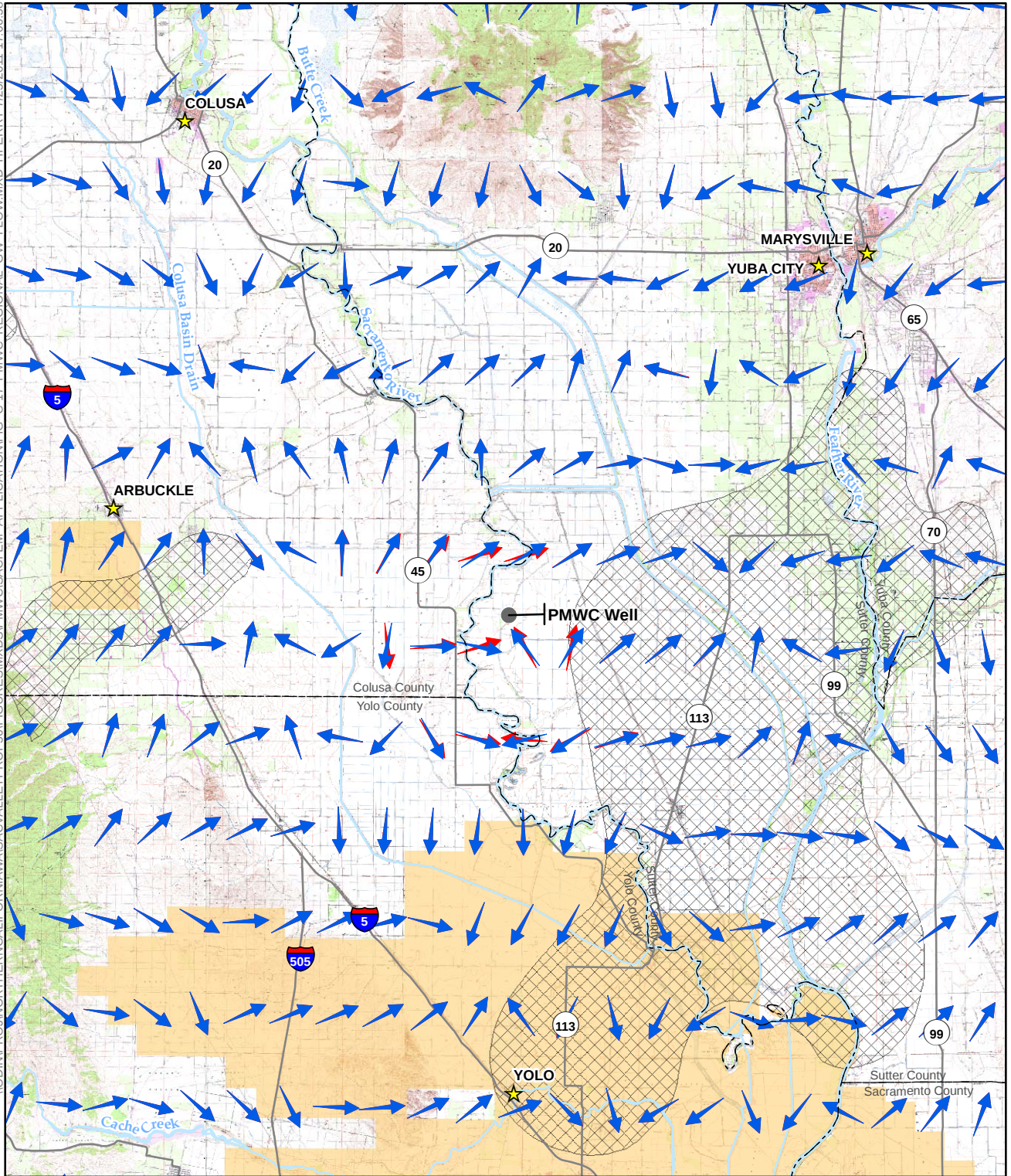
- 0.25-MILE BUFFER
- ★ CITY
- MAJOR WATERWAY
- - - COUNTY BOUNDARY
- ▨ TDS CONCENTRATION GREATER THAN 500 mg/L
- BORON CONCENTRATION GREATER THAN 0.75 mg/L
- ➡ BASELINE SIMULATION GROUNDWATER FLOW DIRECTION
- ➡ PROJECT SIMULATION GROUNDWATER FLOW DIRECTION



NOTES:
GROUNDWATER FLOW DIRECTIONS SHOWN OCCUR NEAR THE END OF PREDICTIVE SIMULATION YEAR 23 (SEPTEMBER 1992).
DATA SOURCES: BERTOLDI, 1976; BERTOLDI, 1991; EVENSON, 1985; FOGELMAN, 1978; FOGELMAN, 1979; AND JOHNSON, 1985.

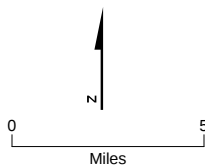
FIGURE C-16
LOCAL IMPACTS
FORECAST TEMPORARY GROUNDWATER FLOW
DIRECTION IN THE SHALLOW AQUIFER
APPLICATION OF SACFEM TO THE PMWC
GROUNDWATER PRODUCTION ELEMENT PROJECT

\\ODINPROJ\NORTH\CALIFORNIA\WASAC\VALLEY\PROPS\50\FIGURES\IMXDS\PMWC\SACFEM APPLICATION\FIG C-17 PMWC REGIONAL GW FLOW.MXD HPERRY 7/25/2011 17:00:58



LEGEND

- 0.25-MILE BUFFER
- ★ CITY
- MAJOR WATERWAY
- - - COUNTY BOUNDARY
- ⊠ TDS CONCENTRATION GREATER THAN 500 mg/L
- BORON CONCENTRATION GREATER THAN 0.75 mg/L
- ➡ BASELINE SIMULATION GROUNDWATER FLOW DIRECTION
- ➡ PROJECT SIMULATION GROUNDWATER FLOW DIRECTION



NOTES:
GROUNDWATER FLOW DIRECTIONS SHOWN OCCUR NEAR THE END OF PREDICTIVE SIMULATION YEAR 23 (SEPTEMBER 1992).
DATA SOURCES: BERTOLDI, 1976; BERTOLDI, 1991; EVENSON, 1985; FOGELMAN, 1978; FOGELMAN, 1979; AND JOHNSON, 1985.

FIGURE C-17
LOCAL IMPACTS
FORECAST TEMPORARY GROUNDWATER FLOW
DIRECTION IN THE REGIONAL AQUIFER
APPLICATION OF SACFEM TO THE PMWC
GROUNDWATER PRODUCTION ELEMENT PROJECT